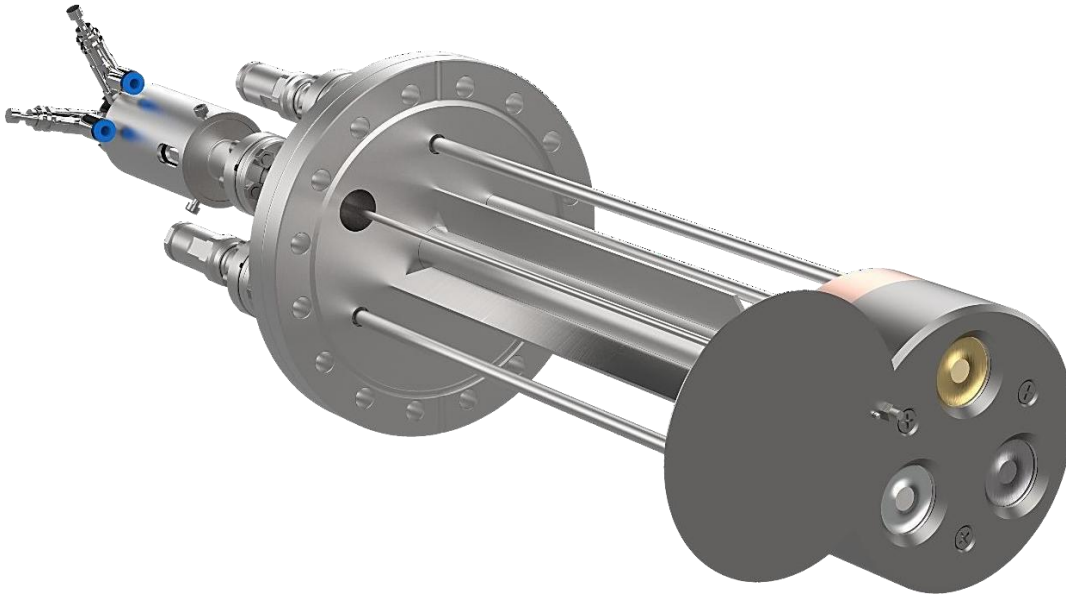




# UHV Triple Target Sputter Source



**Compact sputter cluster source**

**Simultaneous or sequential operation**

**Co-sputtering source**

**UHV Compatible and fully bakeable**



The **triple target sputter source** is a compact cluster sputter source which enables co sputtering from up to three different materials in a single magnetron source. Ideal for alloy or multilayer thin film sputtering where space is limited. Each target has independent power control and can be operated with dc, rf, pulsed dc or HiPIMS power supply. Users can co-sputter up to three different materials to form alloys, or switch between materials to create multilayers without breaking vacuum.



Figure 1 Triple target sputter source operated with an Argon plasma.

The triple target sputter source enables sputtering of both magnetic and non-magnetic materials and targets are easily exchanged by removing the Anode cap and loosening the bayonet style target clamp.

The integral gas hood ensures uniform gas distribution across each of the three targets and facilitates stable sputtering low flow rates and low chamber pressures. The cluster sputter source is compatible with oxygen and nitrogen gases for reactive sputtering of oxides or nitrides.

The source is UHV compatible and can be baked up to 150°C standard; 250°C bakeable option available upon request without the need to remove the magnets.

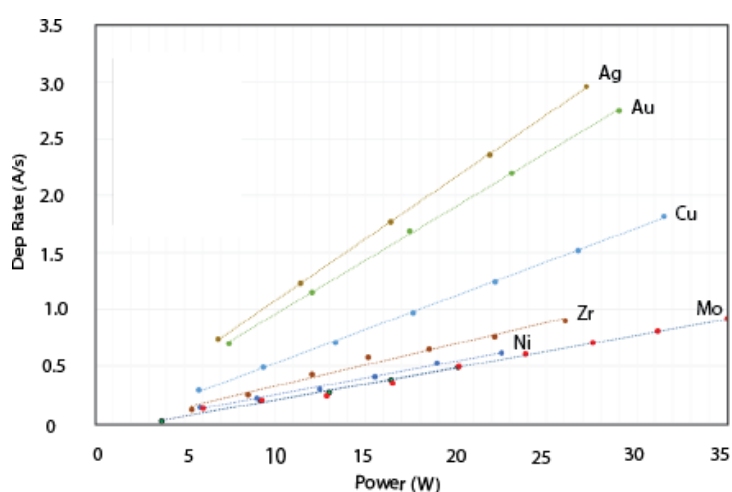


Figure 2 Deposition Rate of different Metals with triple target source for 100m working distance and 8e-3mbar working pressure.

## Specifications

| Triple Target Sputter Source |                                                               |
|------------------------------|---------------------------------------------------------------|
| Head Diameter                | 97mm (with a +/-0.1mm tolerance)                              |
| In Vacuum Length             | 300mm as standard (Configurable)                              |
| Target Operation             | Independent or Simultaneous                                   |
| Target Size                  | 3 * 1 Inch (25mm)                                             |
| Target thickness             | Up to 3mm (nonmagnetic target), up to 0.4mm (magnetic target) |
| Deposition Rate              | Typically, 5 Å/s per target, depending upon material          |
| Source Output                | 3*75W                                                         |
| Target utilisation           | Up to 25%                                                     |
| Power Supply                 | DC, RF, Pulsed DC (unipolar or bipolar) and HiPIMS            |
| Shutter                      | Manual or Automated                                           |
| UHV                          | Bakeable to 150°C standard; 250°C bakeable option available   |
| Gas Distribution             | Gas injection hood                                            |
| Mounting Flange              | CF100                                                         |
| Cooling                      | Min Water flow 1l/min                                         |

